UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

WW-16J

SEP 0 9 2014

Colonel Christopher G. Beck
District Engineer
U.S. Army Corps of Engineers
Louisville District
P.O. Box 59
Louisville, KY 40201-0059

Subject: Public Notice LRL-2013-0444-rjb; High Point Mine, United Minerals Company, LLC, Warrick County, Indiana

Dear Colonel Beck:

The U.S. Environmental Protection Agency has reviewed the above referenced Public Notice issued on August 8, 2014, and the related Clean Water Act (CWA) Section 404 permit application for the proposed surface coal mine in Warrick County, Indiana. Under the preferred alternative, the applicant proposes to impact 59,347 linear feet of jurisdictional streams and 45.72 acres of jurisdictional wetlands for the construction of the 3084.6-acre High Point Mine. The proposed High Point Mine is located between the previously permitted Liberty Mine and pending Seven Hills Mine. The property boundary for all three mines is largely within the Pigeon Creek watershed.

Based on the information contained in the Public Notice, Section 404 permit application materials, and additional project information provided by the U. S. Army Corps of Engineers (Corps), EPA finds that this project may have substantial and unacceptable adverse impacts to Pigeon Creek, its floodplain and its watershed.

***Environmental Impact Statement***

Section 102(2)(C) of NEPA identifies major federal actions that "significantly" affect the quality of the human environment requiring an environmental impact statement (EIS). "Significantly" under NEPA regulations is defined by two criteria: context, and intensity of impacts of the proposed project.[1] "Context" refers to the affected environment in which a proposed action would occur, and "intensity" means the degree to which the proposed action would minimally include one or more of the factors listed below. As proposed, the High Point Mine appears to exceed thresholds for significance based on the context and intensity of the project. For the following reasons, EPA strongly recommends that the Corps consider an EIS for this project:

[1] 40 C.F.R. § 1507.27

- **Cumulative Impacts:** As stated above, the High Point Mine will be located between the permitted Liberty Mine and the pending Seven Hills Mine. These mining activities would likely lead to impacts that are cumulatively significant. The cumulative impacts from the High Point Mine and other permitted and proposed mines could significantly impact human health and the environment, and would be grounds for the preparation of an EIS.

- **Public Health or Safety:** The proposed mine may raise environmental justice concerns. Nearby communities could be disproportionately impacted by the proposed mine given that the proposed mine would be located between two proposed and operating mines, further exacerbating existing exposures to sensitive populations. Nearby communities may be exposed to multiple mine-related impacts, including fugitive dust, noise, and water discharge. The potential for public health and safety risks will be increased, creating the necessity for an EIS to be prepared.[2]

- **Threatened and Endangered Species:** The proposed High Point Mine is within the range of the Federally Endangered Indiana bat (*Myotis sodalis*) and proposed endangered northern long-eared bat (*Myotis septenrionalis*). According to a U.S. Fish and Wildlife Service (USFWS) letter dated August 26, 2014, there are multiple records of both species within 2.5 miles of the project area. The proposed area contains abundant summer habitat that supports Indiana bat reproductive colonies. The proposed mining activity would temporarily or permanently eliminate approximately 545 acres of Indiana bat summer habitat.

As stated in previous correspondence and reiterated above, EPA believes the proposed project should be analyzed in conjunction with other similarly proposed projects in the area, including the pending Seven Hills Mine. The operation of these mines relies on shared infrastructure, including the preparation plant. This qualifies the permitting of these mines as connected actions, which should be analyzed in one NEPA document.

If a formal EIS is not required, the applicant will still need to complete a thorough cumulative impacts analysis as required under the CWA Section 404(b)(1) Guidelines (Guidelines).[3] This analysis should consider both environmental justice concerns and endangered species.

***Cumulative Impacts***

In order to fully analyze the past, present, and reasonable foreseeable impacts as required under the National Environmental Policy Act (NEPA) and the Guidelines, the applicant should prepare a cumulative impacts analysis that details the changes in hydrology, drainage patterns, and channel composition in the watershed. Impact assessments for wetlands should include direct and secondary impacts from previous and current actions, as well as impacts from future actions as a result of changes in surface and groundwater hydrology.

A CWA Section 404 permit was issued for the nearby Liberty Mine, LRL-2010-218-gjd, in April 2012. The Liberty Mine permit authorized impacts to 20,343 feet of streams and 99.4 acres of wetlands just to the south and east of the proposed High Point mine; there is currently a request to modify the Liberty Mine permit to impact an additional 5,035 linear feet of streams, 34 acres of wetlands and 30 acres of open water. The preliminary proposal for the Seven Hill's Mine, just west of the proposed High Point

[2] 40 C.F.R. § 1507.27(b)(2)
[3] 40 C.F.R. § 230.11(g)

Mine, would impact approximately 458.2 acres of wetlands and 31,762 linear feet of streams. These three adjacent mines would cumulatively impact over 100,000 linear feet of streams and 600 acres of wetlands. The vast majority of impacts from these three mines will occur within the Pigeon Creek watershed in northwestern Warrick County. While the Liberty Mine has already been permitted, the proposed High Point Mine and Seven Hills Mine should be considered a single permitted project since both are owned by United Minerals Company, appear to be at similar stages of development in the permitting process, and the preparation plant serving both operations would be constructed on the High Point site.

In an August 26, 2014 letter to the U.S. Army Corps of Engineers Newburgh Field Office, USFWS noted the permit area contains high quality natural habitat, including good habitat for many species of migratory birds and other forest wildlife, and contains a diverse mixture of hardwood species. EPA considers Pigeon Creek, its tributaries, and its forested floodplain wetlands to be valuable resources which provide unique, high quality natural habitat, support endangered species, and serve significant biological functions. We agree with USFWS that the area possesses special ecological characteristics of productivity, habitat, and wildlife protection, which are important and easily disrupted ecological values. Except as provided under Section 404(b)(2), no discharge of dredged or fill material shall be permitted which will cause or contribute to significant degradation of the waters of the United States. Based on the quantity of impacts to quality resources, as well as the extent of cumulative impacts of mining on the Pigeon Creek watershed, EPA believes the project, as proposed, will result in significant degradation of waters of the United States.[4]

***Avoidance and Minimization***

The Guidelines require that the applicant demonstrates there are no practicable alternatives available that would have a less adverse impact on the aquatic environment for non-water dependent activities. The Guidelines presume that less damaging upland alternatives are available for these activities. In the 404 application, the applicant stated that it examined potential avoidance and minimization opportunities, but no detailed information regarding this effort was provided. EPA requests the applicant provide more detailed information (i.e. maps and narrative) which details and supports its avoidance and minimization efforts under the preferred alternative. Specific information detailing the areas of the project that overlap with other proposed mining projects (i.e. Seven Hills) in relation to the location of avoided areas is needed. The additional information on avoidance and minimization is necessary for the Agencies to determine compliance with the Guidelines.

***Mitigation and Monitoring***

The applicant has provided a mitigation plan, which includes a monitoring and sampling plan based on physical, chemical, and biological performance standards. EPA believes that the amount of mitigation proposed to compensate for direct impacts is consistent with other approved projects in the area; however it fails to consider and compensate for the secondary, cumulative, and temporal effects of this project on the immediate and greater watershed. With the two abutting mines in the same watershed, it is imperative to take connectivity into account when designing mitigation. As such, the mitigation plan as currently stated does not appear to comply with the 404(b)(1) Guidelines.[5] The following must be considered in the mitigation plan:

[4] 40 C.F.R. § 230.10(c)
[5] 40 C.F.R. 230.94(c)

- The mitigation plan should evaluate the full range of impacts considered under the 404(b)(1) Guidelines, including secondary and temporal impacts.
- Financial assurance is stated as being provided under their SMCRA permit. The applicant needs to address financial assurances in a CWA Section 404 context and provide a long-term management strategy/plan for mitigation areas.
- The proposed monitoring plan included with the draft permit is insufficient. The monitoring program for this project must require biological, chemical, and physical assessments throughout mining operations, including: 1) prior to the initiation of mining activities to establish baseline conditions; 2) during mining operations to assist in determining potential impacts to aquatic habitat and water quality downstream impacts; and 3) for a minimum of five years after the completion of stream restoration and site reclamation activities at the mine site where appropriate to determine mitigation success. Only groundwater monitoring, per SMCRA requirements, is proposed throughout the duration of mining operations.

In summary, EPA believes the High Point Mine, as proposed, may have substantial and unacceptable adverse impacts on Pigeon Creek, its tributaries and its forested floodplain wetlands. EPA objects to the project as proposed because it does not comply with the 404(b)(1) Guidelines. An EIS should be considered for this project, in concert with the pending Seven Hills project.

Please notify us of any response to these comments and any changes to the permit application. We appreciate the opportunity to provide comments on this Public Notice. Please contact Holly Arrigoni (312-886-0995) with any questions regarding this letter.

Sincerely,

Tinka G. Hyde, Director
Water Division

Enclosure

cc: Robert Brown, USACE - Louisville (via email)
David Carr, IDEM
Scott Pruitt, USFWS – Bloomington
Ramona Briggeman, IDNR Division of Reclamation, Jasonville, IN

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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NOV - 6 2013

REPLY TO THE ATTENTION OF:
WW-16J

U.S. Army Corps of Engineers, Louisville District
ATTN: Mr. George DeLancey, CELRL-OP-FW
P.O. Box 489
Newburgh, Indiana 47629-0489

Re: United Minerals Company, LLC-Seven Hills Mine, LRL-2013-635-GJD

Dear Mr. DeLancey:

The U. S. Environmental Protection Agency has reviewed the preliminary Clean Water Act (CWA) Section 404 permit application (permit application) for the subject project. Under United Minerals Company, LLC's preliminary proposal, approximately 458.2 acres of wetlands (of which 401.5 acres are forested) and 31,762 linear feet of streams, would be impacted for the construction of the 2,351.2-acre Seven Hills Mine in the Pigeon Creek watershed southeast of Elberfeld in Warrick County, Indiana. Approximately 1,370.3 acres of the site has been previously mined. Two distinct previously mined areas lie in the eastern and southern portions of the permit area. We offer the following comments based on our review of the preliminary permit application.

***Land Use/Existing Conditions***

A November 2010 letter from the United States Fish and Wildlife Service (USFWS) to the Indiana Department of Natural Resources (IN DNR) commenting on the Surface Mining Control and Reclamation Act (SMCRA) permit application for the Seven Hills Mine, conveyed serious concerns about proposed impacts to wetlands and other bottomland forest along Pigeon Creek that provide abundant habitat for numerous and significant wildlife species, including migratory birds, the Copperbelly water snake *(Nerodia erythrogaster neglecta)*, and the federally endangered Indiana bat (*Myotis sodalis*). In addition to the habitat value of these natural areas, bottomland hardwoods serve a critical role in the watershed by reducing the risk and severity of flooding to downstream communities by providing areas to store floodwater. These wetlands improve water quality by filtering and flushing nutrients, processing organic material, and reducing sediment before it reaches open water.[1] Forested wetlands are ecologically important systems and represent some of the most diverse, complex, and productive freshwater wetlands in the Nation. In spite of their high value, these systems have experienced significant decline in

[1] http://water.epa.gov/type/wetlands/bottomland.cfm

area throughout the United States. Between 2004 and 2009, forested wetlands declined by an estimated 633,100 acres. This trend in forested wetlands loss only heightens the significance of any additional loss of these resources.[2]

United Minerals Company, LLC (UMC) asserts that the additional range of habitat types that would result from reclamation at the Seven Hills Mine site will be an improvement over existing conditions; however, this assertion is not supportable given the high acreage of forested wetlands that would be lost.

*Alternatives Analysis*

The preliminary application information does not provide an adequate range of alternatives that avoid and minimize impacts to aquatic resources at the project site to the maximum extent practicable under the CWA Section 404(b)(1) Guidelines (Guidelines). The amount of effort and level of detail included in the analysis must be commensurate with the level of aquatic resources impacted, which EPA believes to be significant in this case. EPA strongly recommends the applicant provide alternatives that include considerable avoidance of valuable bottomland wetland habitat. For example, UMC should consider alternatives that include mining from the eastern portion of the site (which includes previously mined areas) towards the west, up to the bottomland wetland areas (leaving a sufficient buffer), and augering under the wetlands. UMC makes a general statement in the permit application that "historically augering activities have proven to not be cost effective in most circumstances."

EPA understands that more coal can be extracted using the open pit method than the augering method; however, no information is provided to demonstrate that augering is cost prohibitive specific to this project. The practicability of each alternative should be considered in light of cost, logistics, and available technology and evaluated at a level that reflects the significance of the resources to be impacted.

*Cumulative Impacts*

In order to fully analyze the past, present, and reasonable foreseeable impacts as required under the National Environmental Policy Act (NEPA) and the Guidelines, the applicant should prepare a cumulative impacts analysis that details changes in hydrology, drainage patterns, and channel composition in the watershed. Impact assessments for wetlands should include direct and indirect impacts from previous and current actions as well as impacts from future actions as a result of changes in surface and groundwater hydrology.

The cumulative impacts analysis should also discuss potential ecological impacts associated with the loss of forest cover and forest fragmentation along the Pigeon Creek bottomlands. As mentioned above, USFWS expressed this as a serious concern in its November 2010 letter to IN DNR. The mining activity would temporarily or permanently eliminate at least 600 acres of summer habitat for the endangered Indiana bat (*Myotis sodalis*) and valuable habitat for other

[2] United States Fish and Wildlife Service. 2011. *Status and Trends of Wetlands in the Conterminous United States 2004 to 2009.*

species such as the Copperbelly water snake *(Nerodia erythrogaster neglecta)*. EPA understands that listing of this species in southern Indiana was precluded due to development of a *Copperbelly Water Snake Conservation Agreement and Strategy* (Agreement) endorsed by the USFWS, IN DNR, and the Indiana Coal Council, which is now expired. According to the USFWS, since the expiration of the Agreement, all parties have continued to implement the goals of the Agreement voluntarily, to avoid and conserve Copperbelly water snake habitat. This permit application is the first USFWS is aware of that would not follow the tenants of the Agreement.

A Clean Water Act Section 404 permit was issued for the nearby Liberty Mine, LRL-2010-218-gjd, in April 2012. The permit authorized impacts to 8,948 feet of perennial streams, 5,183 linear feet of intermittent streams, 6,212 linear feet of ephemeral streams, 35.3 acres of forested wetlands, 63.3 acres of emergent wetlands, and 0.8 acre of scrub-shrub wetlands. In addition, the recently proposed High Point Mine (LRL-2013-444-rjb) is approximately 3084.6 acres in size and abuts the proposed site. According to Robert Brown of your office, the proposed High Point Mine would impact approximately 27 acres of wetlands and 63,000 linear feet of streams. This mine would also be operated by UMC. EPA requests that the Corps treat the proposed High Point Mine and proposed Seven Hills Mine as a single project. They are abutting UMC mines, appear to be at similar stages of development in the permitting process, and the preparation plant serving both operations would be constructed on the High Point Mine site.

***Environmental Justice Concerns***

Based on the limited information provided in the permit application and other environmental and demographic data, EPA believes the proposed mine may raise environmental justice concerns. Demographic data indicate there are both high percentages of low-income individuals and children under the age of five, who are particularly vulnerable to impacts from mining operations. Environmental data shows high levels of particulate matter ($PM_{2.5}$) and a high number of major water dischargers in the area. EPA is concerned that communities would potentially be disproportionately impacted by the proposed mine. Further, EPA is concerned about cumulative impacts to the surrounding communities, given that the proposed mine would be located near an operating mine, further exacerbating existing exposures to sensitive populations.

***Preparation of an Environmental Impact Statement***

Section 102(2)(C) of NEPA identifies major federal actions that "significantly" affect the quality of the human environment requiring an environmental impact statement (EIS). In regulations the Council on Environmental Quality promulgated under NEPA, 'significantly' is defined by two criteria: context and intensity of impacts of the proposed project.[3] 'Context' refers to the affected environment in which a proposed action would occur and 'intensity' means the degree to which the proposed action would include one or more of the factors listed below, among others. The Seven Hills Mine, as currently proposed, appears to exceed thresholds for significance based on the context and intensity of the project. Therefore, EPA strongly recommends that the Corps prepare an EIS for this project for the following reasons:

[3] 40 CFR § 1508.27

- **Unique characteristics of the geographic area:** The Seven Hills Mine would impact approximately 458.2 acres of wetlands and 31,562 linear feet of streams. The impacted subwatershed is a candidate for protection per Indiana Department of Environmental Management (IDEM) watershed management plans.[4] According to the Indiana Wetlands Conservation Plan, wetlands serve important functions, both in human benefits such as maintaining the quality of the water we drink and controlling flooding, and in environmental benefits, such as providing habitat for endangered species of wildlife and plants. The fact that the majority of the wetland resources once present in Indiana have been lost or altered makes wetlands especially critical resources for conservation.[5] Because of the scale of the proposed project's impacts to ecologically critical areas, EPA views the preparation of an EIS as appropriate.[6]

- **Public Health or Safety:** As discussed above, the proposed mine may raise environmental justice concerns. Adjacent communities include a high number of low-income individuals and a high number of children under the age of five. These populations are more sensitive to impacts and potentially experience unique exposure pathways. Communities may be exposed to multiple mine-related impacts, including fugitive dust, noise, and water discharge. Based on this, the potential for public health and safety risks are increased and an EIS should be prepared.[7]

- **Cumulative Impacts:** As mentioned in the comments on Cumulative Activity, Seven Hills Mine would be located near an active mine and abutting a proposed mine. Additional mining activities would likely lead to impacts that are cumulatively significant.[8] The cumulative impacts from the Seven Hills Mine and other proposed mines could potentially have significant impacts on human health and the environment, and would be grounds for the preparation of an EIS.

- **Threatened and Endangered Species:** As discussed above, the proposed Seven Hills Mine is within the range of Indiana bat (*Myotis sodalis*) maternity roosting habitat (endangered) and the Copperbelly watersnake, which has been previously proposed for inclusion on the federal threatened species list for this area. Potential impacts to threatened or endangered species are considered grounds for the preparation of an EIS.[9]

As discussed above, EPA believes the proposed project should be analyzed in conjunction with other similarly proposed projects in the area, including the High Point Mine. The operation of both mines relies on shared infrastructure, including the preparation plant, which is located within the proposed footprint of High Point Mine. This qualifies the permitting of both mines as connected actions,[10] which should be analyzed in one NEPA document.

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[4] http://ai.org/idem/nps/3241.htm

[5] Indiana Department of Natural Resources. 1996. *Indiana Wetlands Conservation Plan.*

[6] 40 CFR § 1508.27(b)(3)

[7] 40 CFR § 1508.27(b)(2)

[8] 40 CFR § 1508.27(b)(7)

[9] 40 CFR § 1508.27(b)(9)

[10] 40 CFR 1508.25(a)(1)

*Mitigation and Monitoring*

Compensatory mitigation is the last step in the sequence during a CWA Section 404 permit review.[11] An in-depth discussion regarding mitigation is premature given the applicant first needs to adequately address avoidance and minimization. However, per the Corps' request, EPA has reviewed the proposed on-site and off-site compensatory mitigation plans and offers the following general comments at this time to help improve the mitigation plan.

- The applicant needs to document how avoided stream reaches will be preserved or affected during mining and what that will mean for reconstructed stream reaches in terms of flow regime.
- The applicant needs to explain the rationale behind selecting the proposed performance goals of EPA Rapid Bioassessment Protocol (RBP) scores of at least 115 for intermittent stream mitigation reaches and at least 110 for ephemeral stream mitigation reaches. EPA recommends that the applicant locate reference reaches in the area to use as a guide to develop stream mitigation goals. As you know, reference conditions in the region can be used to scale the assessment to the "best attainable" condition for mitigation reaches.
- The mitigation ratio proposed for forested wetland is 2:1. The proposed mitigation ratio is too low given the valuable functions of the resources proposed to be impacted, the temporal loss of function between the time the wetlands are impacted and the maturation of the mitigation site, and the risk associated with establishing forested wetlands. EPA recommends that the applicant be expected to mitigate for bottomland hardwood forest at a ratio of 4:1.
- The off-site wetland mitigation proposal is in need of significant improvement. More detail on the existing conditions of the mitigation areas, especially those proposed for preservation and enhancement, is necessary to determine the merit of the proposal.
- The applicant needs to address financial assurances in a CWA Section 404 context and provide a long-term management strategy/plan for mitigation areas.
- As part of the monitoring program for affected and reconstructed streams, biological monitoring should be required to ensure there is no degradation to the communities that inhabit the streams. Biological monitoring, along with water chemistry and physical assessments, should occur: 1) prior to the initiation of mining activities to establish baseline conditions; 2) during the mining activities to assist in determining potential impacts to aquatic habitat and water quality downstream of the impacts; and 3) for at least five years after the completion of stream restoration and site reclamation activities at the mine site where appropriate to determine mitigation success. The applicant has not proposed sampling during mining.

In conclusion, we strongly recommend that the Corps consider our recommendation to prepare an EIS for this project and our comments above to protect the significant resources within the Pigeon Creek bottomlands. Thank you for the opportunity to review the preliminary application for the Seven Hills Mine. We look forward to discussing these comments with you. Please

[11] 40 CFR 230.91(c)

contact Melissa Blankenship of our office at (312) 886-6833 or (503) 326-5020 with any questions.

Sincerely,

Peter Swenson

Peter Swenson, Chief
Watersheds and Wetlands Branch

cc: David Carr, IDEM
Scott Pruitt, USFWS-Bloomington
James Townsend, USACE-Louisville District